RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/778,516C
Source:	1FW16
Date Processed by STIC:	4/25/05
•	

ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 04/25/2005 PATENT APPLICATION: US/09/778,516C TIME: 10:52:39

Input Set : A:\12875-002.txt

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4 <110> APPLICANT: Lo, Wei-Yu
        Lo, Ming Ching
        Liau, Pei-Ru
8 <120> TITLE OF INVENTION: LAC SHUTTLE VECTORS
11 <130> FILE REFERENCE: 12875-002001
13 <140> CURRENT APPLICATION NUMBER: 09/778,516C
14 <141> CURRENT FILING DATE: 2001-02-07
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17 <151> PRIOR FILING DATE: 2000-05-26
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21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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26 <213> ORGANISM: Lactobacillus plantarum
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                                                                          120
31 aatggcccgc ctggctgacc gcccaacgac ccccgcccat tgacgtcaat aatgacgtat
                                                                          180
32 gttcccatag taacgccaat agggactttc cattgacgtc aatgggtgga ctatttacgg
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33 taaactgccc acttggcagt acatcaagtg tatcatatgc caagtacgcc ccctattgac
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34 gtcaatgacg gtaaatggcc cgcctggcat tatgcccagt acatgacctt atgggacttt
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35 cctacttggc agtacatcta cgtattagtc atcgctatta ccatggtgat gcggttttgg
                                                                          420
36 cagtacatca atgggcgtgg atagcggttt gactcacggg gatttccaag tctccacccc
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37 attgacgtca atgggagttt gttttggcac caaaatcaac gggactttcc aaaatgtcgt
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38 aacaacteeg ceecattgae geaaatggge ggtaggegtg taeggtggga ggtetatata
                                                                          600
39 agcagagete tetggetaae tagagaaeee actgettaet ggettatega aattaataeg
                                                                          660
40 acteactata gggagaceca agettggtae egagetegga tecaetagta aeggeegeea
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42 ggccctattc tatagtgtca cctaaatgct agagctcgct gatcagcctc gactgtgcct
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43 totagttgcc agecatetgt tgtttgcccc tececegtge etteettgae eetggaaggt
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44 gccactccca ctgtcctttc ctaataaaat gaggaaattg catcgcattg tctgagtagg
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45 tgtcattcta ttctgggggg tggggtgggg caggacagca agggggagga ttgggaagac
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46 aatagcaggc atgctgggga tgcggtgggc tctatggctt ctgaggcgga aagaaccagc
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47 tgcattaatg aatcggccaa cgcgcgggga gaggcggttt gcgtattggg cgctcttccg
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48 cttcctcgct cactgactcg ctgcgctcgg tcgttcggct gcggcgagcg gtatcagctc
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49 actcaaaggc ggtaatacgg ttatccacag aatcagggga taacgcagga aagaacatgt
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50 gagcaaaagg ccagcaaaag gccaggaacc gtaaaaaggc cgcgttgctg gcgtttttcc
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51 ataggeteeg eeceeetgae qageateaca aaaategaeg etcaagteag aggtggegaa
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52 accegacagg actataaaga taccaggegt tteeceetgg aageteeete gtgegetete
                                                                         1440
53 ctgttccgac cctgccgctt accggatacc tgtccgcctt tctcccttcg ggaagcgtgg
                                                                         1500
54 egetttetea atgeteaege tgtaggtate teagtteggt gtaggtegtt egeteeaage
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Input Set : A:\12875-002.txt

			agacacgact				1680
57	ggattagcag	agcgaggtat	gtaggcggtg	ctacagagtt	cttgaagtgg	tggcctaact	1740
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59	gaaaaagagt	tggtagctct	tgatccggca	aacaaaccac	cgctggtagc	ggtggttttt	1860
60	ttgtttgcaa	gcagcagatt	acgcgcagaa	aaaaaggatc	tcaagaagat	cctttgatct	1920
61	tttctacggg	gtctgacgct	cagtggaacg	aaaactcacg	ttaagggatt	ttggtcatga	1980
62	gcggatacat	atttgaatgt	atttagaaaa	ataaacaaat	aggggttccg	cgcacatttc	2040
63	cccgaaaagt	gccacctgac	gtcgacggat	cgggagatca	acggtaaatc	cgttggcata	2100
64	tcccttttt	gttgtcagct	tgctgacttc	tgatacaggt	tttagcatta	ctccaattta	2160
65	tttggagtgt	aagtgcacat	tatcatgtag	tgcgcattat	catgtagtgc	gcattatcat	2220
66	gtagtgcgca	ttatcatgta	gtgcgcatta	tcatgtagtg	cgcattatca	tgtagtgcgc	2280
67	attatcatgt	agtgcgcaca	ttatcatgta	cattatcatg	tagtgcgcat	tatcatgtag	2340
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			tgcgtcagtt				2520
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			ggtttttgct				2880
			cttgatacta				2940
			ttgtatccat				3000
			aaagacaaaa				3060
			gattatcatt				3120
			aagcttattg				3180
			tcagaaattt				3240
			attgaaaatg				3300
			gtacggggtt				3360
			caaacgtggt				3420
			aactcgagcc				3480
			tttttgtttt				3540
			ttaagagctt				3600
			ttattgggtt				3660
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			atagttaagc	-			4260
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						gcaaactaag	4380
		_				gttaaattag	4440
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DATE: 04/25/2005 PATENT APPLICATION: US/09/778,516C TIME: 10:52:39

Input Set : A:\12875-002.txt

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			aattctggga				4860
110	cacggtaatc	gtgaccgtca	tcaacagcga	aactttcaca	aatagccaga	tgctcttgcc	4920
111	gatcggccac	agcgtccaag	ccctggatga	tgtattcaag	ttagaaggga	agaattagaa	4980
112	aatgagcaat	aagttagtaa	aagaaaaaag	agttgaccag	gcagacctgg	cctggctgac	5040
			tcaatacaat				5100
			agggcaagtc				5160
			acggccaggg				5220
116	cgatagcaat	tttaagtcag	tcaaagtacc	cggcaacctg	gaactgcaag	gctttggcca	5280
117	gccccagtat	gtcaacgtcc	aatatccatg	ggacggcagt	gaggagattt	tcccgcccca	5340
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119	ctgggacaag	gaagtcagct	tgaagtttga	cggggcggca	acagccatct	atgtctggct	5460
120	gaacggccac	ttcgtcggct	acggggaaga	ctcctttacc	ccaagcgagt	ttatggttac	5520
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			tccgcaactt				6000
			agggggccaa				6060
130	ggctatcacg	gaagaggata	tgatctggga	catcaagacc	atgaagcgaa	gcaacatcaa	6120
131	tgctgtccgc	tgctctcact	acccgaacca	gtccctcttt	taccggctct	gtgacaagta	6180
132	cggcctttac	gtcattgatg	aagctaacct	ggaaagccac	ggcacctggg	aaaaagtggg	6240
			tcaatgttcc				6300
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			gccggatgta				6540
			catttatctc				6600
			acacggccct				6660
			aaggactgga				6720
			actatgaatt				6780
			ctaatgtcaa				6840
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	_		tcgatggcaa			_	6960
			ccgggacctt	_			7020
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153	tgtcgcctta	aagggtgatt	taaccgtgac	ctatgaagtc	gatggacggg	gcaagattgc	7500

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PATENT APPLICATION: US/09/778,516C TIME: 10:52:39

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157	ctttagccca	tatcgtccgc	aggaaacggg	caaccggagc	aaggttcgct	ggtaccagct	7740
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176	taaactgccc	acttggcagt	acatcaagtg	tatcatatgc	caagtacgcc	ccctattgac	300
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178	cctacttggc	agtacatcta	cgtattagtc	atcgctatta	ccatggtgat	gcggttttgg	420
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				caaaatcaac			540
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				actgcttact			660
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						cgctccaagc	
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				tatcgccact			1680
				ctacagagtt			1740
				tctgcgctct			1800
				aacaaaccac			1860
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PATENT APPLICATION: US/09/778,516C TIME: 10:52:39

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	_		ttcatcgcca	_			2220
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			atttttaatc				2340
			ctcgtatttc				2400
212	tcagttcctt	tacgtttgtt	agctttaaca	gcctgcacat	gcaccacagg	ctcataatca	2460
			taattttgcc				2520
		_	tacaaacagc				2580
	_		ttccgttgaa				2640
			attaaaggct				2700
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			caatcgttta				2880
			acgcaaaact				2940
			atattcggca				3000
		_	ttcagtttta	•			3060
			gagctgacta				3120
		_	ataggctata	-	_		3180
			ttgcacgtgg	_	_		3240
226	tataacccta	ataatacacc	aaaagcctat	aaaatcaatg	gatacaagcc	caattaagcc	3300
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228	gccaaaaatt	gcgtttttaa	accccaaaaa	gcagatcagc	aaaaaccgct	gaactgcttt	3420
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230	cgccgctggg	ctcgggaaaa	caagggcttg	ttttccaaga	cgtcaggctt	ttggtattgt	3540
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232	agcccctcta	agtcgattta	ccgttgacag	acagttagat	agctaactgt	tagctaaaat	3660
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		_	tatttttgaa				3780
			gcaggttttg				3840
		_	gataatgcgc				3900
			cgcactacat				3960
			taatgcgcac				4020
			ctacatgata				4080
			tgctaaaacc	-			4140
			ttaccgttga	_		-	4200
	_		atagttaagc				4260
243	gtcgctgagt	agtgcgcgag	caaaatttaa	gctacaacaa	ggcaaggctt	gaccgacaat	4320
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			atcttaaaat				4440
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			ttgacgaccc				4560
			gatccgataa				4620
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/778,516C

DATE: 04/25/2005 TIME: 10:52:40

Input Set : A:\12875-002.txt